

SEQUENCE LISTING

<110> HARVEY, BARRETT R.
 GEORGIU, GEORGE
 IVERSON, BRENT L.

<120> ANTIBODIES WITH INCREASED AFFINITIES FOR ANTHRAX ANTIGENS

<130> UTSB:721US

<140> UNKNOWN

<141> 2003-07-15

<150> 60/396,058

<151> 2002-07-15

<160> 25

<170> PatentIn Ver. 2.1

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<211> 17

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<223> Description of Artificial Sequence: Synthetic
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caggaaacag ctatgac

17

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<211> 17

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<223> Description of Artificial Sequence: Synthetic
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<400> 2

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<210> 3

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
 Primer

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<210> 4
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 <223> Description of Artificial Sequence: Synthetic
 Primer

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 Primer

 <400> 5
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 <210> 8
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<223> Description of Artificial Sequence: Synthetic Peptide

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Gln Thr Thr His Val Pro Pro
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<223> Description of Artificial Sequence: Synthetic Peptide

<400> 9

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<223> Description of Artificial Sequence: Synthetic Peptide

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<210> 11

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<223> Description of Artificial Sequence: Synthetic Peptide

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<210> 12

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<213> Artificial Sequence

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Gln Thr Thr His Thr Pro Pro
1 5

<210> 13
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1 5

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<213> Artificial Sequence

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<210> 18
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<210> 19
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Peptide

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<223> Description of Artificial Sequence: Synthetic
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gatggaactg ttaaaactct gatctactac acatcaagat tacagtcagg agtcccatca 180
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gacaaatcct ccagcacagc ctacatgcag ctcagcagcc tgacctctgt ggactctgcg 660
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<223> Description of Artificial Sequence: Synthetic
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<400> 21

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Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Arg Asn Tyr
      20                25                30

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Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Leu Leu Ile
      35                40                45

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Tyr Tyr Thr Ser Arg Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
      50                55                60

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Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Gln Glu Gln
      65                70                75                80

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Glu Asp Ile Gly Thr Tyr Phe Cys Gln Gln Gly Asn Thr Leu Pro Trp
      85                90                95

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Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Gly Gly Gly Gly
      100                105                110

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Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
      115                120                125

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Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
      130                135                140

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Ser Val Lys Ile Ser Cys Lys Asp Ser Gly Tyr Ala Phe Ser Ser Ser

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25316703.1

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 180 185 190
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
 195 200 205
 Met Gln Leu Ser Ser Leu Thr Ser Val Asp Ser Ala Val Tyr Phe Cys
 210 215 220
 Ala Arg Ser Gly Leu Leu Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly
 225 230 235 240
 Thr Ser Val Thr Val Ser Ser
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<210> 22
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 <212> DNA
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Synthetic
 Primer

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 gacggaactg ttaaattcct gatctactac acatcaagat tacagccagg agtcccatca 180
 aggttcagtg gcagtgggtc tggaaacagat tattccctca ccattaacaa cctggagcag 240
 gaagatattg gcacttactt ttgccaacag ggcaatacgc ctccgtggac gttcgggtgga 300
 ggcaccaagc tggaaataaa acgtggtgga ggtggttctg atggtggtgg ttctggcggc 360
 ggcggtccg gtggtggtgg atccgaggtc caactgcaac agtctggacc tgagctggtg 420
 aagcctgggg cctcagtgaa gatttcctgc aaagattctg gctacgcatt caatagctct 480
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 gacaaatcct ccagcacagc ctacatgcag ctcagcagcc tgacctctgt ggactctgcg 660
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 <213> Artificial Sequence

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 Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly

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Asp Arg Val Thr Val Ser Cys Arg Ala Ser Gln Asp Ile Arg Asn Tyr	20	25	30
Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Phe Leu Ile	35	40	45
Tyr Tyr Thr Ser Arg Leu Gln Pro Gly Val Pro Ser Arg Phe Ser Gly	50	55	60
Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Asn Asn Leu Glu Gln	65	70	80
Glu Asp Ile Gly Thr Tyr Phe Cys Gln Gln Gly Asn Thr Pro Pro Trp	85	90	95
Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Gly Gly Gly Gly	100	105	110
Ser Asp Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser	115	120	125
Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala	130	135	140
Ser Val Lys Ile Ser Cys Lys Asp Ser Gly Tyr Ala Phe Asn Ser Ser	145	150	160
Trp Met Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile	165	170	175
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Ser Asn Tyr Asn Gly Lys Phe	180	185	190
Glu Gly Lys Ala Ile Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr	195	200	205
Met Gln Leu Ser Ser Leu Thr Ser Val Asp Ser Ala Val Tyr Phe Cys	210	215	220
Ala Arg Ser Gly Leu Leu Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly	225	230	240
Thr Ser Val Thr Val Ser Ser	245		

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<211> 741

<212> DNA

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<223> Description of Artificial Sequence: Synthetic
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 aggttcagtg gcagtgggtc tggaacagat tattccctca ccattaacaa cctggagcag 240
 gaagatattg gcacttactt ttgccaacag ggcaatacgc ctccgtggac gttcgggtga 300
 ggcaccaagc tggaaataaa acgtgggtga ggtggttctg atggtgggtg ttctggcggc 360
 ggcggctccg gtggtgggtg atccgaggtc caactgcaac agtctggacc tgagctggtg 420
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 gacaaatcct ccagcacagc ctacatgcag ctacgcagcc tgacctctgt ggactctgcg 660
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 20 25 30
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 35 40 45
 Tyr Tyr Thr Ser Arg Leu Leu Pro Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Asn Asn Leu Glu Gln
 65 70 75 80
 Glu Asp Ile Gly Thr Tyr Phe Cys Gln Gln Gly Asn Thr Pro Pro Trp
 85 90 95
 Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Gly Gly Gly Gly
 100 105 110
 Ser Asp Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 115 120 125
 Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
 130 135 140
 Ser Val Lys Ile Ser Cys Lys Asp Ser Gly Tyr Ala Phe Asn Ser Ser
 145 150 155 160
 Trp Met Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile

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Gly	Arg	Ile	Tyr	Pro	Gly	Asp	Gly	Asp	Ser	Asn	Tyr	Asn	Gly	Lys	Phe
			180					185					190		
Glu	Gly	Lys	Ala	Ile	Leu	Thr	Ala	Asp	Lys	Ser	Ser	Ser	Thr	Ala	Tyr
		195					200					205			
Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Val	Asp	Ser	Ala	Val	Tyr	Phe	Cys
	210					215					220				
Ala	Arg	Ser	Gly	Leu	Leu	Arg	Tyr	Ala	Met	Asp	Tyr	Trp	Gly	Gln	Gly
225					230					235					240
Thr	Ser	Val	Thr	Val	Ser	Ser									
				245											

SEQUENCE LISTING

<110> HARVEY, BARRETT R.
GEORGIOU, GEORGE
IVERSON, BRENT L.

<120> ANTIBODIES WITH INCREASED AFFINITIES FOR ANTHRAX ANTIGENS

<130> UTSB:721US

<140> UNKNOWN

<141> 2003-07-15

<150> 60/396,058

<151> 2002-07-15

<160> 25

<170> PatentIn Ver. 2.1

<210> 1

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Primer

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 <400> 4
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 <400> 5
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 <210> 6
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 <210> 7
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<210> 12

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<210> 13

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Gln Thr Thr His Thr Pro Pro
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<210> 14

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<210> 15

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Gln Thr Thr His Val Pro Pro
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<210> 16

<211> 7

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Peptide

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Peptide

<400> 17
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Peptide

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Peptide

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acctcagtca ccgtctctc g 741

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<210> 21

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<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 21

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Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly
 1             5             10             15

Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Arg Asn Tyr
      20             25             30

Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Leu Leu Ile
      35             40             45

Tyr Tyr Thr Ser Arg Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
      50             55             60

Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Gln Glu Gln
      65             70             75             80

Glu Asp Ile Gly Thr Tyr Phe Cys Gln Gln Gly Asn Thr Leu Pro Trp
      85             90             95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Gly Gly Gly Gly
      100            105            110

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
      115            120            125

Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
      130            135            140

Ser Val Lys Ile Ser Cys Lys Asp Ser Gly Tyr Ala Phe Ser Ser Ser

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145 150 155 160
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 Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe
 180 185 190
 Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
 195 200 205
 Met Gln Leu Ser Ser Leu Thr Ser Val Asp Ser Ala Val Tyr Phe Cys
 210 215 220
 Ala Arg Ser Gly Leu Leu Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly
 225 230 235 240
 Thr Ser Val Thr Val Ser Ser
 245

<210> 22
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 <223> Description of Artificial Sequence: Synthetic
 Primer

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 aggttcagtg gcagtggggtc tggaacagat tattccctca ccattaacaa cctggagcag 240
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 ggcaccaagc tggaaataaa acgtggtgga ggtggttctg atggtggtgg ttctggcggc 360
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 gacaaatcct ccagcacagc ctacatgcag ctcagcagcc tgacctctgt ggactctgcg 660
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 acctcagtc ccgctctctc g 741

<210> 23
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 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Peptide

<400> 23
 Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly

1	5	10	15
Asp Arg Val Thr Val Ser Cys Arg Ala Ser Gln Asp Ile Arg Asn Tyr	20	25	30
Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Phe Leu Ile	35	40	45
Tyr Tyr Thr Ser Arg Leu Gln Pro Gly Val Pro Ser Arg Phe Ser Gly	50	55	60
Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Asn Asn Leu Glu Gln	65	70	75
Glu Asp Ile Gly Thr Tyr Phe Cys Gln Gln Gly Asn Thr Pro Pro Trp	85	90	95
Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Gly Gly Gly Gly	100	105	110
Ser Asp Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser	115	120	125
Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala	130	135	140
Ser Val Lys Ile Ser Cys Lys Asp Ser Gly Tyr Ala Phe Asn Ser Ser	145	150	155
Trp Met Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile	165	170	175
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Ser Asn Tyr Asn Gly Lys Phe	180	185	190
Glu Gly Lys Ala Ile Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr	195	200	205
Met Gln Leu Ser Ser Leu Thr Ser Val Asp Ser Ala Val Tyr Phe Cys	210	215	220
Ala Arg Ser Gly Leu Leu Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly	225	230	235
Thr Ser Val Thr Val Ser Ser	245		

<210> 24

<211> 741

<212> DNA

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Primer

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aagcctgggg cctcagtga gatttcctgc aaagattctg gctacgcatt caatagctct 480
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acctcagtca ccgtctcctc g
741

```

```

<210> 25
<211> 247
<212> PRT
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Synthetic
      Peptide

```

```

<400> 25
Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly
 1             5             10             15

Asp Arg Val Thr Val Ser Cys Arg Ala Ser Gln Asp Ile Arg Asn Tyr
      20             25             30

Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Phe Leu Ile
      35             40             45

Tyr Tyr Thr Ser Arg Leu Leu Pro Gly Val Pro Ser Arg Phe Ser Gly
      50             55             60

Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Asn Asn Leu Glu Gln
      65             70             75             80

Glu Asp Ile Gly Thr Tyr Phe Cys Gln Gln Gly Asn Thr Pro Pro Trp
      85             90             95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Gly Gly Gly Gly
      100            105            110

Ser Asp Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
      115            120            125

Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
      130            135            140

Ser Val Lys Ile Ser Cys Lys Asp Ser Gly Tyr Ala Phe Asn Ser Ser
      145            150            155            160

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile

```

165						170						175			
Gly	Arg	Ile	Tyr	Pro	Gly	Asp	Gly	Asp	Ser	Asn	Tyr	Asn	Gly	Lys	Phe
			180				185						190		
Glu	Gly	Lys	Ala	Ile	Leu	Thr	Ala	Asp	Lys	Ser	Ser	Ser	Thr	Ala	Tyr
			195				200						205		
Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Val	Asp	Ser	Ala	Val	Tyr	Phe	Cys
			210				215						220		
Ala	Arg	Ser	Gly	Leu	Leu	Arg	Tyr	Ala	Met	Asp	Tyr	Trp	Gly	Gln	Gly
			225	230						235			240		
Thr	Ser	Val	Thr	Val	Ser	Ser									
						245									